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DECISION

IN THE

GREAT INDIA RUBBER CASE

OF

CHARLES GOODYEAR

vs.

HORACE H. DAY.

DELIVERED SEPTEMBER 28th, 1852.

THE CAUSE HAVING BEEN ARGUED AT THE LAST MARCH TERM OF THE
UNITED STATES CIRCUIT COURT AT TRENTON, N. J., BEFORE JUDGES
GRIER AND DICKERSON, BY DANIEL WEBSTER AND JAMES
T. BRADY, FOR THE PLAINTIFF, AND RUFUS CHOATE
AND FRANCIS B. CUTTING, FOR THE DEFENDANT.

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IN THE
CIRCUIT COURT,
OF THE
UNITED STATES.
DISTRICT OF NEW-JERSEY.

May Term—1852.

CHARLES GOODYEAR

vs.

HORACE H. DAY.

} *Bill in Equity ; heard on
Pleadings and Proofs.*

GRIER, J.—The bill in this case sets forth that, since 1843, Charles Goodyear has been, and now is, the owner of certain new and useful improvements in the preparation of India Rubber for manufacturing purposes, by which the properties of this substance are greatly changed and improved. It is rendered insensible to heat and cold, within certain degrees of temperature. Its clammy and sticky character is taken away, and it is made proof against the effects of fat and grease, or expressed oils, while the strength, elasticity, and other good qualities of the original substance, are retained and improved.

That these improvements were secured to complainant by letters patent—the first, dated 24th of February, 1839, on a discovery of Nathaniel Hayward, of Woburn, Mass., assigned by him to Goodyear. This patent was for the application of sulphur in the curing of India Rubber. After this, the complainant, Goodyear, in 1840, commenced, and continued for several years, his experiments on India Rubber, in order to discover some method of rendering this substance insensible to cold and heat, and freeing it from the clammy properties which injured the use and sale of goods theretofore manufactured from it. For want of these qualities, all the manufacturers of this substance have heretofore failed, and many been ruined.

That, struggling under many discouragements and difficulties, from his poverty and want of means, he continued his experiments for two or three years ; and after repeated failures, and much loss of time and materials, in the latter part of the year 1843 he discovered that by applying a very high degree of artificial heat (from 250 degs. to 300 degs. of Fahrenheit) to the substance, when compounded with certain proportions of sulphur and carbonate of lead, or other metallie bases, the qualities so much desired would be imparted to it.

That for this discovery or improvement in the art of manufacturing India Rubber, he obtained a patent on the 15th June, 1844.

This patent, owing to defects in its specification, was surrendered, and another issued on the 25th of December, 1849, with an amended and more perfect specification.

That about the time the patent of 1844 was obtained, the complainant

sold to David L. Suydam, of New-York, the right to use said discovery and improvement in the manufacture of shirred or corrugated goods, for which license said Suydam agreed to pay the sum of \$15,000.

That soon after Suydam had commenced manufacturing shirred goods, the respondent Day commenced the same business, in violation and disregard of the rights granted by said patent to Goodyear.

That Day, by overstocking the market with an inferior article, and denying the validity of said patents, so annoyed, vexed, and discouraged said Suydam, that he refused to go on with his contract, or to pay the \$15,000, and re-transferred his license to complainant. That suits at law and in equity were instituted against Day and his agents, both in New-York and Boston. To these suits Day set up, as a defence, that said patents were void, because Hayward and Goodyear were not the inventors or discoverers of the improvements set forth therein. That, after much preparation made on both sides for the trial of these issues, at November Term, 1846, Day applied to Goodyear to settle and discontinue the suits, offering to confess judgment on one of them, to pay 5,000 damages, and buy from Goodyear a license for the exclusive manufacture of shirred goods under said patents, to pay three cents per yard, and stamp the goods with Goodyear's name, and not to make any other article to infringe the patents. That these terms were accepted, articles of agreement executed, and all the suits discontinued and released by complainant, except one on which judgment was entered in favor of the plaintiff, which was satisfied by the payment of the said \$5,000 damages by Day. Since that time Day, in utter disregard of his contract, and of the rights secured to complainant by said patents, has commenced to manufacture other articles than shirred goods, and sell them in large quantities, to the great injury of the complainant.

The bill prays that the defendant may render an account of the articles made and sold by the respondent, in disregard of the patents of complainant, and not included in the license from him to defendant; and for an injunction against Day, restraining him from the further infringement and violation of said patents.

The defendant, Day, in his answer, denies—

1st. That Goodyear is the owner of any new and useful improvements, as claimed by the bill.

2d. Admits a patent was granted for an invention of Hayward's, but denies that it vested in Goodyear any exclusive right to the use of sulphur in the manufacture of India Rubber goods, for that the invention of Hayward was in public use, with his consent and allowance, before the application for a patent.

3d. He denies that Goodyear was the first inventor or discoverer of the beneficial effects of a high degree of heat applied to India Rubber.

4th. The answer then sets forth *in hæc verba* the patent to Goodyear of 15th June, 1844, and proceeds to enumerate various companies and individuals, who are alleged to have manufactured India Rubber with sulphur, white lead, and a high degree of heat.

5th. Without denying directly the infringement by defendant of complainant's patents, the answer alleges that he has not used, in the manufacture of India Rubber goods, a combination of gum, sulphur, and white lead, in the proportions claimed specially in said letters patent.

6th. The answer proceeds to deny that Goodyear is the inventor of shirred or corrugated goods, and proceeds to name others who made and used them.

As the bill has no such charge or allegation, this part of the answer need not be further noticed.

7th. That complainant, in 1849, surrendered his patent of 1844, and took out two new patents, one for an improvement in felting India Rubber with cotton fibre; that both the re-issued patents are void, for various reasons set forth at length.

8th. The answer repeats frequently that the defendant used all the combinations of the patent of 1844 more than two years before that time; and enumerates some twelve patents, the use of which he has purchased, and alleges that the re-issued patent of complainant interferes with some of them.

9th. The answer admits the suits brought against defendant for infringement of Goodyear's patents; the settlement and discontinuance of said suits, and sets forth the articles of agreement executed by the parties at length, taking some collateral issues as to some immaterial circumstances connected therewith, which need not be mentioned.

10th. That Goodyear wilfully and fraudulently deceived the defendant, to induce him to enter into the said agreement, giving no other reason for the assertion, however, than that William Judson was a part owner of Goodyear's patents at the time.

11th. That William Judson, James A. Dorr, and John Haskins, are parties in interest, and should be made parties complainant.

12th. That Goodyear did not protect defendant in the exclusive rights guaranteed to him by the agreements.

13th. That when this agreement was made, the defendant "meant to reserve his right" to manufacture in any way he pleased the moment Goodyear failed to protect him in the exclusive right of manufacturing shirred goods; and because this was done, had "repudiated his said contracts," and pleads such repudiation in bar of this bill.

14th. That complainant is barred from recovering the tariff covenanted in the articles to be paid on shirred goods, up to 1st of January, 1849, by a verdict and judgment at law in a suit tried in this court.

15th. That Goodyear's patent of 1844 was invalid, by reason of combining two separate inventions—one for rubber compound, the other for felting cloth (the latter of no value); that the claim in the patent of 1849 is fraudulent, because it claims the "application of heat to the curing of rubber;" that by this surrendered and fraudulent renewal of his patent, Goodyear has annulled said articles of agreement.

16th. That defendant has not used the compound described in Goodyear's patents of 1844 and 1849, but has used other and better compounds.

17th. The answer concludes by praying "a trial by jury of the various issues of fact formed by it."

If the value of the subject matter in controversy in this case be in any measure proportionate to the amount of costs and expenses, the number of volumes of printed record, the number and eminence of the counsel, or the zeal and ability displayed in the argument, it must be one of great importance to the parties in its results, if not in its principles.

Numerous points, both of fact and law, have been argued and submitted by the counsel, many of which might have been avoided, if such had been the desire of the complainant, by the form of the bill. Much of the answer also, is occupied with matter either wholly irrelevant or merely tending to evade the consideration of the case.

We shall, therefore, only notice such points stated in the answer as have been relied on in the argument, without further criticism of the pleadings than to say, that the defendant is not estopped from denying the validity of complainant's patents, although he would have been if the bill had contained proper averments.

I. The first question in their natural order for our consideration, is whether the bill should be dismissed for want of proper parties. It has been contended that this bill should be dismissed, because John Haskins, William Judson, and James A. Dorr have not been made parties.

Haskins was but a mere licensee of the complainant; and although such licensees may be benefited indirectly by a decree in favor of complainant, they are not necessary parties. Besides, the agreement with Haskins if not surrendered to plaintiff, has been long abandoned, and cannot be invoked to affect the merits of this case in any manner.

The assignments to Dorr and Judson contain certain words, which, if taken alone, would convey a legal title to certain undivided interests in the patents; but when we examine the whole instrument, it clearly appears that the intention of the parties was not to convey the legal title to any portion of the patent. It reserves the whole and sole power of disposal, and, consequently, title to Goodyear. Dorr and Judson are *cestui que trusts*, entitled to a share of the profits made by such sales. The defendant has dealt with Goodyear. Dorr and Judson are no parties to the contract. The injunction, if decreed, may be beneficial to them, and they may be entitled to a share of the damages recovered, in their settlement with Goodyear. We do not think that they are necessary as parties, in order that the court may make a full and final decree. They were present in court, are willing to be made parties on the record, if necessary, and if any difficulty should be anticipated on that subject, the court will suspend the decree till they are made parties, and consent to be bound by it. See Story, on Eq. Pl. §237. We do not therefore, consider this difficulty as such a one as should stand in the way of our proceeding to a final decree in this case.

II. Another objection on which the defendant resists the decree for an injunction is, that the complainant has not established his title at law. It has been argued by the counsel for defendant, that the verdict of a jury on the question of the validity of a patent, is absolutely required by the practice of courts of chancery, before granting a final injunction; and that this is a right or privilege which the court is bound to accord to the defendant, when the answer takes issue on this point.

It is true that in England the Chancellor will generally not grant a final and perpetual injunction in patent cases, when the answer denies the validity of the patent, without sending the parties to law to have that question decided. But even there the rule is not absolute or universal; it is a practice founded more on convenience than necessity. It always rests on the sound discretion of the court. A trial at law is ordered by a Chancellor to inform his conscience; not because either party may demand it as a right, or that a court of equity is incompetent to judge of questions of fact, or of legal titles.

In the courts of the United States, the practice is by no means so general as in England, or as it would be here, if the trouble of trying issues at law devolved upon a different court.

Cases involving inquiries into the most complex and difficult questions of mechanics and philosophy, are becoming numerous in the courts. Often

questions of originality, and infringement of patents, do not depend so much on the credibility of witnesses or the weight of oral testimony, as on the application of principles of science and law to admitted facts. It is true, that in matters of opinion, both mechanics and learned professors will differ widely. But still the question is not to be decided by the number, credibility, or respectability, of such witnesses; but by the force and weight of the reasons given for their respective opinions. It is no reflection on trial by jury to say, that cases frequently occur, in which ten out of twelve jurors do not understand the principles of science, mathematics, or philosophy, necessary to a correct judgment of the case. Besides, much of the time of the courts is lost, where twelve men will not agree on any verdict; or when they have agreed, the conscience of the Chancellor, instead of feeling enlightened, rejects it altogether.

A select or special jury of philosophers, if they could be got, would perhaps not prove more satisfactory or obviate the difficulty. In the late case involving the validity of Morse's telegraph patents, which was heard in Philadelphia, a final injunction was decreed without a verdict to establish the patents; and many other cases might be cited from other circuits, if necessary, in support of this practice, showing that the courts of the United States do not always consider it a proper exercise of their discretion to order such issues to be tried at law, before granting a final injunction.

In the present case there are many reasons why the court will not thus exercise their discretion:

1st. Because this case has been set down for final hearing on the exhibits and proofs, without any motion or order of the court for such an issue.

2d. After a patient hearing of very able counsel, and a careful consideration of the testimony, the court feel no doubt or difficulty on these questions, which would be removed or confirmed by a verdict.

3d. It would require three or four weeks at least, to try this case before a jury, if this library of testimony were read to them; and at least as many months, if the witnesses were examined *viva voce*, as they probably would be; and, after all this expenditure of time and labor, it is even more than probable, that from the confusion created by the great length of the testimony and argument in court, or the force and effect of those urged from without, no verdict would be obtained, and most certainly none that would alter the present conviction of the court.

4th. But even if it were the right of the defendant to demand such an issue in ordinary cases, there are sufficient reasons why it should not be accorded in this.

This defendant commenced his infringement of the plaintiff's patent soon after they were issued. Actions at law were brought against him and his agents; the cases were prepared for trial; the defendant found he could not defend himself, and he agreed to give judgment on one of the suits; he paid damages for his infringements; he purchased a license to use plaintiff's discovery in the manufacture of shirred goods; he covenanted not to use it in the manufacture of any other than the articles specified in his license; he does not allege any mistake or misrepresentation, or the discovery of any new evidence or fact since that time, or that any one but himself disputes the complainant's rights, or invades them with impunity. All these facts are apparent on the face of the pleadings, and do not entitle the defendant to any claim of favor in the use of our discretion, or to any action of the court which will add to its enormous expenses, and greatly protract the results of this suit.

III. Without requiring the aid of a jury, we shall therefore proceed to examine the questions, both of fact and law, which affect the validity of complainant's patents.

The patents are themselves sufficient *prima facie* evidence that the patentees were the original inventors or discoverers of the things patented, and that the same are new and useful. Since the patent act of 1836, the Commissioner of the Patent Office acts *quasi* judicially on these subjects. He is bound to inquire and decide them, before granting a patent, but as they proceed *ex parte*, their action is not conclusive on those who were not parties to the proceeding. The burthen of proof, therefore, lies on the defendant, to show that any other persons than Hayward and Goodyear were the original inventors or discoverers of the things patented.

To give a history of the various experiments on the substance called Caoutchouc or India Rubber, and of their success or failure, previous to those of Hayward and Goodyear, or to notice particularly the testimony of each of the hundred witnesses who have been examined, would require us to add another to the numerous volumes which already encumber this case. Being unwilling to inflict on ourselves the labor of writing, and on others that of hearing or reading such a treatise, we shall not attempt to vindicate the correctness of our decision by analyzing the testimony, and arraying the volume, page and folio, which justifies our conclusions, but shall merely state the results to which we have arrived, after careful consideration of the whole case.

Previous to the years 1834 and '35, many experiments had been made, and much capital expended in attempts to manufacture Caoutchouc, or India Rubber; or rather to employ it in the manufacture of various articles for the purpose of imparting to them the peculiar quality of this substance. All attempts to do this in a satisfactory manner had been in a great measure, if not wholly, unsuccessful. The defects in the article manufactured on the various plans and discoveries thus far made, were such as to destroy their value in market. The goods became clammy and sticky by heat; they were made hard and stiff by cold. It is true that in this variety of experiments and failures, many facts and processes had been discovered which were partially beneficial, but the great and important fact, that India Rubber could, by any treatment or combination, be made to assume the peculiar and valuable qualities now known to be possessed by the material or substance called "Vulcanized India Rubber," had not been discovered.

About this time Goodyear commenced his experiments. For a long time he was unsuccessful. He spent his money, his time, his credit. His family was reduced to poverty, and himself immured in a prison. Yet still he persisted. And finally his faith and energy were rewarded by the discovery, the value of which this controversy most abundantly proves. As we know a substance only by its qualities, he may be said to have discovered a new substance; or at least the fact that India Rubber, by certain combinations and manipulations, could be made to assume certain valuable qualities which it did not before possess, and the mode of imparting them.

Previous to this time, Nathaniel Hayward had discovered that sulphur could be used to great advantage in drying the Rubber, and had assigned his right to this discovery to Goodyear, and a patent had been issued.

It was not till 1844, when Goodyear had perfected his invention by contin-

ued experiments, that he obtained a patent. This patent was afterwards found to be defective, and was surrendered and canceled, and a new one granted in 1849.

As the answer does not put in issue the originality of Hayward's discovery, we need not notice it further at present than to say, that, notwithstanding the attempt to controvert this fact on the argument from certain testimony in the case, it was wholly unsuccessful. The defendant need not regret the candor of his answer in admitting it.

The question now under consideration is, therefore, whether any other person had succeeded in discovering and perfecting the peculiar process or manufacture claimed in the patent of 1844 and 1849, before Charles Goodyear? Was "vulcanized India Rubber," as now known in the arts, known, and the process of manufacturing it perfected, before Charles Goodyear made known his discovery, and had perfected it by experiment?

The testimony shows that many persons had made experiments—that they had used sulphur, lead, and heat, before Goodyear's patents, and, probably, before his discovery. But to what purpose? Their experiments ended in discovering nothing, except, perhaps, that they had ruined themselves. The great difference between them and Goodyear is, that he persisted in his experiments, and finally succeeded in perfecting a valuable discovery, and they failed. It is usually the case, when any valuable discovery is made, or any new machine of great utility has been invented, that the attention of the public has been turned to that subject previously; and that many persons have been making researches and experiments. Philosophers and mechanics may have, in some measure, anticipated, in their speculation, the possibility or probability of such discovery or invention; many experiments may have been unsuccessfully tried, coming very near, yet falling short of the desired result. They have produced nothing beneficial. The invention, when perfected, may truly be said to be the culminating point of many experiments, not only by the inventor, but by many others. He may have profited indirectly by the unsuccessful experiments and failures of others; but it gives them no right to claim a share of the honor or the profit of the successful inventor. It is when speculation has been reduced to practice, when experiment has resulted in discovery, and when that discovery has been perfected by patient and continued experiments—when some new compound, art, manufacture, or machine, has been thus produced, which is useful to the public, that the party making it becomes a public benefactor, and entitled to a patent.

And yet when genius and patient perseverance have at length succeeded, in spite of sneers and scoffs, in perfecting some valuable invention or discovery, how seldom is it followed by reward! Envy robs him of the honor, while speculators, swindlers, and pirates, rob him of the profits. Every unsuccessful experimenter who did, or did not, come very near making the discovery, now claims it. Every one who can invent an improvement, or vary its form, claims a right to pirate the original discovery. We need not summon Morse, or Blanchard, or Woodworth, to prove that this is the usual history of every great discovery or invention.

The present case adds another chapter to this long and uniform history. Every man who has made experiments with India Rubber, sulphur, lead, or any other substance; who has heated them in a stove or furnace; who has annoyed his family and his neighbors with sulphurous gas; who has set up a rubber factory and failed; who has made India Rubber goods that no one

would buy, or, if bought, were returned as worthless; in fine, all who had ceased their experiments and endeavors, because they had not discovered that such qualities could be given to that substance, are now paraded forth as the inventors and discoverers of vulcanized India Rubber. It is but just to many of these persons to say, that they themselves have made no such claim. It has been now for the first time made for them by the defendant, who appears to have discovered at length that he himself was probably the inventor; a fact which appears to have been unknown to him in 1846, when actions were first brought against him for pirating this discovery; a fact, also, which others are more ready to prove than himself to assert. Notwithstanding the indomitable energy and perseverance with which this attempt to invalidate the patent has been pursued, the volumes of testimony with which it is oppressed, and the great ability with which it has been canvassed in the argument, we are of opinion, that the defendant has most signally failed in the attempt to show that himself, or any other person, discovered and perfected the process of manufacturing vulcanized India Rubber before Charles Goodyear.

The testimony about Collins, which has been most relied on in the argument, contains much internal evidence of falsehood; it proves too much, and too little; it is *felo de se*. Yet, assuming it to be true, it amounts to no more than this: that he had used the ingredients of sulphur, white lead, &c., in connection with the rubber; that he had heated them; that he may have had some partial success, which, if pursued with perseverance and judgment, might have resulted in the discovery of vulcanized rubber. He may possibly have been so near the discovery as to stumble over it. Yet he never went on to perfect his experiments. They were abandoned without a successful result. Every factory that employed him, and purchased his services or his secret, failed. No goods of "vuleanized India Rubber" made by him, or in the factories that employed him, have survived to prove his success. Time, which devours all things, may be presumed not yet to have digested or destroyed all the vulcanized rubber supposed to have been made (if it ever had been made) by Collins and the various other pretenders.

The sum of the evidence so industriously collected appears to be this, and this only. Others have made experiments: they have tried sulphur, white lead, and a high degree of heat, and have failed to perfect any valuable discovery. Goodyear has used these elements, and perfected a valuable art. They have failed: he has succeeded.

IV. The objection that the patents to Goodyear are invalid, because both Hayward and himself had severally abandoned their discoveries to the public, is not sustained.

The question of abandonment to the public must always depend, in a great measure, on the peculiar nature of the subject matter. The mere sale of a peculiar manufacture, which does not on its face disclose the nature of the compound, or the mode of producing it, is not such an abandonment. That India Rubber could be treated so as to have the qualities that it is now known to possess in its "vulcanized" state, could not be discovered by any reasoning *a priori*. Those acquainted with the subject might conjecture, hope, or believe, that such a thing might be discovered. But the discovery must necessarily be empirical—the result of time, experiment, or chance; of patient attention to phenomena exhibited, and results obtained. And when the fact of possibility is at length established, the best mode of obtain-

ing the given result must be tested by frequent and patient experiment and observation.

The compound or substance called "vulcanized India Rubber" was of no actual value *per se*, but only as it could be made to enter into the manufacture of other articles, and communicate its peculiar qualities to them. How those articles would retain those qualities in use and command a market, could be tested only by time and experience. Neither Hayward nor Goodyear would have been justified in shouting "Eureka" and claiming a patent on the first appearance of success in their respective experiments. Goodyear exhibited the substance discovered by him and some goods manufactured with it in England in 1843. He sold some of the goods here. But he did not disclose to the public either there or here, the method of compounding his material or what constituted his real secret or discovery. An exhibition of the manufactured articles did not disclose it, except that from the smell it might be inferred that sulphur had been somehow used in its concoction. Hancock, who obtained a patent in England for the same discovery, had seen Goodyear's articles, and thus ascertained that such a material could be made, but not the mode of effecting it. His patent was held valid by the English courts, on the ground that, although Goodyear had first made the discovery in America, he had not abandoned it to the public by the sale of the manufactured articles; and that the use of the manufacture was not the use of the invention, as the material itself did not disclose the means of making it; and that, therefore, Hancock was entitled to be considered an original inventor.

It is true that discoverers might sometimes deal unfairly with the public, by enjoying their monopoly so long as their process remained secret, and seeking a patent only when it was in danger of discovery. How far such conduct might invalidate a patent will be decided when such a case arises. It is sufficient for the purposes of the present case, that we say, that the evidence does not show an abandonment of the processes patented to the public; or that the patentees delayed longer to take out their patents than was justifiable under the peculiar circumstances of the case.

V. We now come to the objections which have been made to the re-issued or amended patent of 1849.

1st. The first objection is, that the patents of 1844 and 1849 are not for the same invention.

This objection is not founded on fact. Both the patents are for precisely the same invention or discovery. They both describe, in nearly the same words, the best mode of manufacturing India Rubber, by exposing it to a high degree of heat in connection with sulphur and white lead; by which treatment the substance is endowed with new and valuable qualities which it did not possess before. The discovery is the same; the mode of manufacturing the compound is the same.

The first patent had set forth the nature and extent of the invention defectively. There is no reason to doubt the *bona fides* and propriety of the re-issue. It is apparent on the face of the papers, even if the action of the commissioner on that point was not conclusive.

2d. The objection "that the description in the specification is obscure and insufficient," is an assertion wholly unsupported by any testimony in the cause.

3d. The objection "that rubber and sulphur cannot be vulcanized in heated atmosphere," is not only irrelevant but unsupported by the evidence.

That some persons have not succeeded, while others have, is no proof of its impossibility.

4th. The fourth objection is, "that the latter patent elaims more than was described in the original." If the latter patent is for precisely the same invention, art, or discovery, as that described in the first, the objection that it claims more, is a mistake of fact. If the last patent differs from the first only in stating more clearly and definitely the real principles of the invention, so that those who wish to pirate it may not be allowed to escape with impunity through the imperfection of the language used in the first, then has arisen one of the cases for which it was the intention of the act of Congress to provide, and the objection is worthless in point of law.

5th. It is claimed also that the re-issued patent is void, because the things claimed in the original were in public use, in the interval between the issue of the original and the re-issue, and were therefore dedicated to the public, and cannot be resumed by the re-issue.

This objection is founded on an assumption of law, which cannot be conceded. It assumes that the publication of a discovery or invention by a defective patent, is a dedication or abandonment of it to the public. If such be the case, the permission given by the act to re-issue a patent, on account of defects, is of little value, and a snare to inventors. The most skilful and ingenious inventor is seldom able to draw up a valid specification of his invention, and not many lawyers have sufficient experience and knowledge, both scientific and legal, to do it for him. The original patents for some of the most valuable modern inventions now known, have been afterwards discovered to be insufficient, and the patents have been renewed, with specifications setting forth, not a different or improved machine, but the same machine or invention, and a corrected statement of what is the true nature and extent of the patentee's claim. Every specification or elaim which correctly sets forth the true nature and full extent of an invention, may be said to be broader than the one which fails to do it. To decide that such a difference would vitiate the last patent, or that the original mistake had amounted to a dedication to the public of everything not correctly elaimed in the specification, would leave the rights of inventors in a most precarious situation, and the right given to amend their patents a mere illusion.

The original patent of Woodworth, issued in 1828, was most palpably defective and worthless. It was renewed in 1845, and the true nature and extent of his elaim eorrectly set forth. The court decided that the renewed patent was valid, because it was for the same invention; and that the question to be decided was not whether the last patent differed from the first in the extent of the claim or statement of the distinetive principle of the invention, provided it elaimed nothing more than the same machine. The right to amend the description of the elaim, so as to make the patent a valid grant of the real invention to its full and true extent, is what the law intended to confer on the inventor. The mistake of elaiming too little, in the original patent, has an equal elaim to eorrection with that of claiming too much.

The ease lately decided at Philadelphia, about the machines for breaking and screening coal, has no application to the present.

The renewed patent in that ease was for a different machine from that described and elaimed in the original; and the machine elaimed and described in the last patent had been abandoned to the publie for many years. But in this case the art of manufacturing vulcanized India Rubber, having cer-

tain qualities not before known, is all that is claimed in the renewed patent and the same art or discovery was described in the original. It included two several inventions, and its validity was on that account doubted (whether correctly or not is immaterial); a separate renewal was a just and proper precaution, and one which the complainant had covenanted with the defendant to obtain.

The amendments in the last, by setting forth the true extent, and distinctive principles of the invention, was a right vested in the patentee, and a wrong to no one, and more especially to the defendant in this case.

In examining questions of identity or infringement, we should first ascertain wherein consists the substantial peculiarity which distinguishes the art or invention patented from all others. Whoever adopts, or appropriates such distinctive peculiarity or principle, without license of the patentee, appropriates the invention and infringes the patent, if its specifications be correctly drawn.

Goodyear's invention or discovery did not consist merely in the use of sulphur or lead, or both; or the application of heat to rubber in connection with both, either or neither of them; all these things had been done before, perhaps to little purpose.

The essential and distinctive peculiarity of his discovery is, that by using a certain degree of heat in the treatment of rubber, in connection with those materials, it can be made to assume new and valuable qualities, distinguishing it from any other substance heretofore known. Whoever manufactures this material, or imparts its peculiar qualities to manufactured goods, by taking advantage of the peculiar discovery of Goodyear, pirates it, whether the patent be sufficient or not. If the specification of the original patent was so ill drawn as to permit this to be done with impunity; if it fully disclosed the art, or invention, but left the patent open to evasion or invasion, the property of the inventor may be compared to a field with an insufficient inclosure. Trespassers may take advantage of it, and defend themselves on the ground that the fence was not legal and sufficient, according to the statute; but, though they may escape punishment by such a plea, they gained no right of entry, or property in the field.

It is no justification of the infringement of a renewed patent, that the infringer had stolen and used the invention with impunity before the patent was amended. The inventor, it is true, may possibly not be able to recover damages for such use antecedent to the date of the renewed patent; but such previous use, though made with impunity, confers no right to the invention, or to future immunity for its infringement. The seventh section of the act of 3d March, 1839, ch. 88, protects those who "have purchased or constructed a newly-invented machine, &c., prior to the application of the inventor or discoverer for a patent," but confers no such privilege on those who may have seized upon an invention or discovery disclosed in a patent, whose specification may happen to be defective or insufficient. On the contrary, the thirteenth section of the act of July, 1836, which regulates the re-issued patents, declares "that the patent so re-issued, together with the corrected description and specification, shall have the same effect and operation in law as though the same had been originally filed in such corrected form before the issuing out of the original patent."

VI. After what has been said, but a few words will be necessary on the question of infringement.

The answer does not contain a direct denial of the infringement of both of

the patents. The assertion that he "has not used the compound in the proportions described in the patents, but has used other and better compound," is evidently a mere evasion, or rather an admission that he has been attempting to evade while actually infringing the patents, in disregard both of the law and his solemn contract. The allegation that he has purchased other patents may be true, but it is immaterial. If the other patents showed a better right to the inventions claimed by Goodyear's patents, they were not given in evidence; if they were for mere variations or improvements of the discovery patented by Goodyear, they were wholly irrelevant.

There is another feature in the defence set up in this answer which the Court are compelled to notice. It claims a right to exercise all the privileges granted by the contract, while it repudiates its obligations. And, moreover, it seems not only to claim to exercise a license granted for using the patents in the manufacture of shirred goods, without paying the tariff or compensation, but also the right to violate the patents with impunity. As regards all other articles, the various covenants, amendments, and additions, signed and sealed by these parties, constitute, in fact, but one agreement. Though dated on different days, they are but consecutive portions of a long negotiation, never concluded till after the last instrument was signed. The covenant not to use the plaintiff's patented discoveries in the manufacture of other articles than those for which he had a license, like a covenant not to rob him, may be considered superfluous. Where law governs, the action of trespass, or case for a tort, will afford as ample a remedy as an action on a special covenant not to commit it. If the monopoly of using these patents in the manufacture of shirred goods, granted and warranted to Day by these articles, has been materially injured through any negligence or fraud of Goodyear, Day will undoubtedly have a right to show such fact in evidence, and recoup the damage caused thereby, in any action, either at law or equity, demanding the compensation or tariff agreed to be paid for the license or monopoly. In the action heretofore prosecuted at law by the same parties on this agreement, Day did recoup or set off such damages against the demand for the tariff—in a case, too, where it was shown that Goodyear had acted in good faith, and had done all in his power to protect the monopoly of Day; but the injury to Day was effected by the fraudulent conduct of others, whose acts neither Goodyear nor Day could control. All damage for breach of the covenants of this article, up to the date of the institution of that suit, must be considered as adjudicated in that suit. The allegation of the plea of the defendant in that case, that the injury to Day's monopoly was done with the collusion of Goodyear, was treated as superfluous, and the jury instructed to allow the set-off without evidence of collusion. The pleas entered in that case had evidently been intended to draw a demurrer, but issues having been taken on them, many of which were wholly irrelevant, it was thought better for the interests of both the parties to dispose of the merits without regard to the net of ill-drawn pleadings with which it was entangled.

In the present case, the whole controversy between the parties, except so far as it has been previously litigated and decided, is presented, though somewhat informally, by the bill and answer. The latter sets forth the contract *in hæc verba*. Though the prayer of the bill does not demand an account of tariff on shirred goods, the answer and proofs seem to have proceeded on the supposition that it did. We cannot permit the plaintiff to split up his claims against the defendant, that he may harass the defendant with another *triennium* of litigation, in actions at law for past breaches of his covenants.

The decree must be final on all causes of action between the parties up to its date, whether founded on the contract, or for infringement of the patents. The contract required the assent of two minds to make it, and the repudiation must be mutual in order to annul it. As the defendant has not succeeded in showing the patents to be void, he can hardly be supposed to desire an abandonment of the contract, which would subject him to much greater damages. What would have been the consequence to him if the complainant, by amending his bill, had joined him in the rejection and destruction of this agreement, we need not inquire. But this contract has been made after great deliberation, and as many acts have been done, and large sums of money paid in part performance of its stipulations; and not only so, but as it has been adjudged to be a binding and subsisting contract in suits at law where both parties have relied on its covenants, it cannot now be treated as a nullity, even though the plaintiff may now assert his readiness to join the defendant in its repudiation. The parties cannot be put in the same situation as if this agreement had never been made. And the Court will not, in a decree intended to put an end to litigation, attempt to undo what has been done, and set aside what has been already adjudicated between the parties. Such a course would cause great difficulty, and renew old disputes. *Interest reipublicæ sit finis litium.* The Court and the public have an interest in this matter, and the parties cannot be indulged, even if they were willing to indulge in a course so harrassing and injurious, if not ruinous to both.

These articles of agreement were originally framed for the avowed purpose of putting an end to litigation, but by some fatality, or, perhaps, necessarily, (from the numerous and contradictory covenants of parties dealing with fear and distrust of each other,) they seem to have furnished fuel for a worse fire than that which they extinguished. If the defendant has exercised the privilege, or enjoyed the license granted to him by the agreement, he should pay the consideration contracted for, and be compelled to perform the stipulations. The evidence shows that he has made large profits by this monopoly of shirred goods. He has, as yet, paid nothing for it. It is no bar to the account of these profits that some petty pirate may have manufactured some shirred goods, if it has not materially affected the profits of the defendant. If Goodyear, after notice that such infringements were committed, has neglected to protect the defendant from such interference, the Master, in stating the account, will allow such damages as may be proved to be recouped from the amount of the tariff.

The Court do, therefore, award an injunction, as prayed for in the bill, and refer the case to James S. Green, Esq., as Master, to take the accounts decreed.

IN CIRCUIT OF UNITED STATES,

For the District of New-Jersey.

CHARLES GOODYEAR,

vs.

HORACE H. DAY.

In Equity.

DICKERSON, J.—In this case the bill charges that the complainant, since the year 1843, has been, and now is, the owner and proprietor of certain new and useful improvements in the preparation of India Rubber for manufacturing purposes, by which the properties of the India Rubber are greatly changed and improved, and the material itself rendered insensible to heat and cold within certain degrees of temperature :

That those improvements have been secured to him by Letters Patent, one of which was granted to the complainant upon the first discovery and invention of one Nathaniel Hayward, and purchased by the complainant, which letters bear date Feb. 24, 1839 :

That in 1840, he was engaged in experimenting upon India Rubber, and discovered that a high degree of heat, in connection with sulphur and other substances, might be attended with beneficial effects. After much difficulty and many experiments, in the latter part of the year 1843, he ascertained that most beneficial results might be obtained by compounding India Rubber with sulphur and the carbonate of lead, or its oxides, or other substances having a metallic base :

That he applied for and obtained a patent for that invention or discovery, dated June 15, 1844 :

That by accident or mistake, and not by fraud, the improvements were not properly described or specified according to the invention and improvements as made :

That he surrendered that patent and obtained a corrected one, dated Dec. 25, 1849 :

That, about the time he obtained the patent of 1844, he sold to one David L. Suydam, the right to use said improvements in the manufacture of shirred goods for suspenders, or other purposes, for the consideration of \$15,000 :

That Suydam commenced the manufacture of said goods, when the defendant Day also commenced manufacturing the same goods in violation of the complainant's right, and so much to the injury of Suydam that he gave up and surrendered his purchase—which surrender the complainant accepted :

That the defendant Day still continued to infringe the rights of the complainant as secured by said patent ; by reason whereof he prosecuted the said Day, and his agents, in different places, for violating the same :

That complainant was prepared to try said causes, or some of them, at the Circuit Court United States, for the southern district of New-York, at the November Term, 1846 :

That shortly before that Term, the defendant Day applied to settle those causes, and proposed :—To acknowledge the validity of his patent ; to pay complainant \$5,000 for damages and settlement of said suit ; to take a license for the sole manufacture of shirred goods, and to pay three cents a yard to the complainant for every yard of shirred goods made under the same ; and to consider all shirred goods made by him, as made under those patents ; to stamp all such goods with complainant's name as patentee ; and to keep and render regular accounts of all shirred goods made by him, and not to infringe said patents :

That complainant accepted said proposition, and agreed to discontinue his suits ; and to take judgment on one of them, and enter satisfaction of the same without costs ; and to accept the \$5,000, and relinquish his claim for damages on the defendant and his agents in said suits :

That the said suits were accordingly discontinued, except one, upon which judgment was entered and satisfied as agreed upon :

That the said sum of \$5,000 was paid by Day, and all claim for damages relinquished by complainant :

That Day acknowledged said patents to be valid, and accepted said license to make shirred goods, and agreed to pay the said tariff of three cents a yard, and to abstain from all infringements of said patents, and to confine himself to the manufacture of shirred goods and some other articles mentioned in said agreement :

That Day, notwithstanding said agreement, violated the said patents, and continues to do so.

PRAYER.—“That defendant may render his account of the articles he has made of India Rubber, or of which India Rubber is a component part, prepared by the use of the improvements, or either of them specified in said patents, or either of them, or made after the manner of either of said improvements specified in either of said patents, &c., except such articles as he is entitled to make under said agreement,” &c.

And also a writ of injunction to restrain defendant, Day, from further infringement of the patents of complainant, and to prevent him from use of the improvements for the manufacture of any articles, except those allowed by said agreement.

The defendant in his answer admits the several patents, as set out in the bill, but denies that the complainant was the original inventor of the improvements claimed by him ; and also denies the validity of either of the patents. But he admits the execution of the agreement mentioned in the complainant's bill, and sets out the same with all the covenants at length. And in this view of the case it is proper to inquire whether the complainant has made a case which entitles him to any relief, and for that purpose to examine carefully that agreement, and consider its effects ; and it is proper to remark that upon this part of the case there is no serious dispute as to facts.

But the defendant, in his answer, alleges by way of plea, that the complainant had granted portions of his said patents to William Judson, James A. Dorr, and John Haskins, and that they should have been made parties to this suit. In answer to that, it is sufficient in this place to say, that it is not pretended that he has granted away all of his interest in said patents,

and therefore, at least as to one branch of the relief prayed, to wit, the injunction, he is entitled to sue alone; and the question therefore is not, whether proper parties have come into Court, but whether the party complainant is entitled to the relief asked, or either branch of it.

The contract made by the parties consists of a variety of covenants, and the first part of it is dated the 29th of October, 1846; and recites that Charles Goodyear, the complainant, at the time of the contract, "has, owns, and controls all and every right and privilege, granted or intended to be granted to him, the said Charles Goodyear, by the several Letters Patent issued to him," except a certain license to Hutehinson & Runyon, one to Ford & Co., both dated August 12, 1845, and one to Onderdonk & Letson, dated Sept., 1845. It also recites that the said Goodyear and his assigns had instituted various suits at law and in equity against the defendant, Day, and his agents, for alleged violations of the said rights; and that they had resolved to settle all differences between them.

Therefore it was agreed as follows: "That the said Charles Goodyear, in consideration of the sum of \$10,000 paid by Day, and of further covenants on the part of Day, hath granted, bargained, sold, assigned, transferred, and set over, and doth hereby grant, bargain, sell, assign, transfer, and set over to the said Horace H. Day, his executors, administrators and assigns:

1st. The exclusive right to make, use, and sell shirred goods; to use his machinery and improvements for that purpose, during the terms specified in said patents; also to use the same for the manufacture of India Rubber hose, beds, &c.

2d. That complainant will re-purchase, and cancel, all licenses, &c., (except the three above named,) touching or affecting the rights conveyed to Day, and until such re-purchasing and canceling, the covenants of Day not to be binding.

3d. That Goodyear will not grant other rights to manufacture shirred goods, and in case of violation of this article, the covenants of Day not to be binding.

4th. Goodyear to prosecute for violations of rights sold to Day, and carry suits to judgment, &c.

5th. That Day shall have the right to use all the improvements made, or to be made by Goodyear, to manufacture shirred goods, &c.; machinery, &c.

6th. That Goodyear shall immediately discontinue all suits, each paying his own costs, and that he will and hereby does release and discharge the said Horace H. Day, &c., from all damages, actions and causes of action for any violations, or alleged violations, of any or all of the said patents above enumerated or referred to, and indemnify and save harmless the said Day from any damages on account of any claim set up under said Goodyear. And the said H. H. Day in consideration of the premises agreed:

1st. That he would pay to Goodyear a tariff of three cents a yard for the shirred goods to be made by him.

2d. That he would keep accounts and books of all such goods made by him.

3d. That he would pay the tariff quarterly from the 1st January then next, 1847.

4th. That he would mark the goods with the name of Goodyear as patentee.

5th. That he, Day, would not assign this right without the assent of William Judson.

Thirdly: It was mutually agreed, that if any person manufactured shirred goods, "thereby materially impairing the profits of said Day in the exclusive enjoyment," &c., or if either of said patents should be declared void by a competent Court, "that then the tariff or assessment above provided for should cease," anything therein before contained to the contrary notwithstanding, "and the settlement of the claims consequent upon the case first above named, should be referred to arbitration, &c. But it was, nevertheless, fully understood and agreed, that the suspension of the tariff or assessment aforesaid, if arising from the cause first above provided for, should subsist only during the continuance of the injurious competition aforesaid." By an additional article on the same day, it was agreed that Goodyear might, when he deemed it right and proper, surrender the patents of 1839 and 1844, or either of them, and take them out anew, but such new Patent or Patents to be subject to all the foregoing covenants.

By additional or supplemental articles, dated 5th Nov., 1846, it was agreed:

1st. That the original articles should be construed and governed by "those of Nov. 5," in all particulars wherein they differ or are inconsistent with these, but in all other respects to remain in full force and virtue.

2d. That the article requiring assent of Wm. Judson to enable Day to assign be canceled.

3d. Day covenants "that while Goodyear protects him, the said Day, in his exclusive right to manufacture shirred or corrugated goods, he, the said Day, will not manufacture any other articles of metallic rubber, or such as is compounded of rubber and sulphur, white lead, or its oxide, or any such, as it is necessary to complete and finish by the aid of artificial heat, or sulphur, except for experiment, &c.

4th. Goodyear covenants that he will procure and cause to be assigned to Day, to be canceled, the three licenses, to Hutchinson & Runyon, to Ford & Co., and to Onderdonk & Letson; which reassignment shall be a condition precedent to the performance of any part of this contract by said Day.

5th. Day agrees that the license granted him to use machinery patented to Goodyear be vacated, &c. By another agreement of same date, it is provided—

1st. Hutchinson and New-Jersey Rubber Co. to bind themselves not to manufacture any shirred goods after a certain time to be fixed.

2d. Ford & Letson to do the like.

3d. That all suits upon the subject be discontinued, each party paying his own costs, except (if deemed advisable by the counsel of the parties), judgments may be taken in the suits *vs.* Myer and Sevier and Knowlton, on condition that satisfaction be entered, each party paying his own costs.

4th. That a release from the Naugatuck Company of the right to make any articles which Day is licensed to make, be obtained and assigned to Day at the time of executing these articles.

5th. That the goods attached in Boston be delivered up to Day free of charge.

6th. All newspaper articles be submitted to counsel before publication, &c.

7th. All remaining questions, such as the period when present manufacturers shall stop making shirred goods, &c., to be submitted to arbitration, if parties cannot agree.

These several covenants were not delivered and exchanged until about the

5th day of December, 1846, when all the preliminary matters therein contemplated had been adjusted, when they were duly executed, under the hands and seals of the respective parties, and delivered; and it is important to inquire as to the rights, duties and obligations of the parties at that time. These several covenants are to be taken together as one entire contract; and it is manifestly a contract partly executed and partly executory. Goodyear had executed his part of the contract by assigning to Day all the rights contemplated in the contract in that respect.

He had withdrawn all suits against Day and his agent; and released all claim for damages according to the terms of the contract. He had called in and canceled all outstanding licenses, according to the requirements of the contract.

He had caused the goods of Day, which were attached in Boston, to be delivered to him without charge. On the part of Day, he had admitted that Goodyear had owned and controlled all and every right and privilege granted, or intended to be granted to him by the said several Letters Patent.

He had established the validity of those patents upon record by consenting that a verdict should be taken and judgment entered thereon for that purpose, and he had paid to Goodyear the consideration of \$5,000. What part of the contract yet remained to be executed? Nothing material on the part of Goodyear, but that he should protect Day in the exercise of the right granted him to manufacture shirred goods, &c.; and on the part of Day, that he should pay the tariff of three cents a yard, keep accounts, and mark the goods, as made under Goodyear's patents.

If at that time, and after the execution and delivery of that contract, Goodyear had in fact fully protected Day, and he had notwithstanding gone on to infringe the rights of Goodyear as secured by said Letters Patent, he would undoubtedly have been restrained by injunction under a bill filed by Goodyear for that purpose, and that without the intervention of a jury; and if at that time, and under those circumstances, he would have been restrained, why should he not be restrained at this time under existing circumstances? It may be true, as alleged in the answer, that Goodyear did not protect Day, as by the contract he had agreed to do. But the only consequence of such failure is to relieve the defendant (Day) from the payment of the three cent tariff, and not to authorize him to *repudiate* the contract itself, which provides that the suspension of the tariff, if caused by injurious competition for want of protection, "shall subsist only during the continuance of the injurious competition. It seems hardly necessary to advert to the extraordinary claim of the defendant in his answer of a right to repudiate this contract by virtue of the 3d covenant of the article, dated Nov. 5, 1846, which provides that while Goodyear protects Day in the right granted him, he, the said Day, will not manufacture any other articles, &c. This article is manifestly made in favor of Goodyear, and its only effect is to give him an action of covenant, in addition to his other remedies against Day, for an infringement of his patents.

The counsel of the defendant (Day) deny that those articles of agreement should be so construed as to prevent Day from denying the validity of the patent of Goodyear, and contend that the Court should not inquire into this matter of alleged estoppel, because it cannot be passed on but by the aid of a jury. In answer to this objection it is sufficient to remark, that in this view of the case there is no disputed fact upon which a jury could act.

They contend, in the next place, that the construction of the complainant's

bill is such that he cannot deprive the defendant of a trial at the law by means of the special equities ; that the bill should have stated the settlement in all its terms, and averred performance of all conditions, &c. ; and that the bill should have been so framed as to give the defendant an opportunity to answer on his oath, deny the special equity, &c.

By reference to the bill in this respect, it appears that the complainant has set out all the material parts of the covenant, and averred the execution and performance of the same ; and the defendant admits the truth of the bill in this respect, and sets out the covenants at large ; and I cannot conceive how the defendant can complain that they had no opportunity in their answer to deny the special equity arising under those covenants ; for, if that equity arises at all, it is upon the facts charged in the bill, and admitted in the answer. The defendant further objects that this bill does not bring this settlement before the court, by such averments as are requisite in order to obtain specific performance.

This may be true, and the reason why the bill does not contain such averments is, that it is not a bill for specific performance ; but it is founded upon the letters patent, and the ground of relief is the infringement by the defendant of those letters ; and this agreement is charged in the bill as a fact, which, in a Court of Equity, should estop the defendant (Day) from denying the validity of the complainant's title ; and that is the question now to be considered. Upon this point I think there can be no reasonable doubt, either upon principle or authority. I know of no principle of equity or fair dealing which would justify the defendant in denying at this time the validity of the complainant's patents, when by these settlements he had induced him to discontinue his suits ; to release his claims for damages for former infringements ; to call in and cancel all licenses before granted ; and to surrender the goods of the defendant which he had attached at Boston. Nor do I know of any authority by which the court would be justified in permitting him to make such denial.

This is not the case of a mere license, but of a license connected with important agreements on the part of the complainant, already executed, and it is a case where the defendant has in fact, and under his seal, admitted the validity of the patents ; and for the very purpose of estopping himself from denying their validity, he has consented to a verdict of a jury against him, which now stands of record to establish it. I am therefore of opinion that the defendant could not be permitted to deny the validity of the complainant's patents, and that he is entitled to an injunction according to the prayer of his bill. And under the circumstances of the case complainant is also entitled to an account, unless a good objection from that branch of the relief arises from the want of proper parties.

The defendant in his answer sets up, by way of plea, that the complainant had made certain assignments of interest in his patents to James A. Dorr, John Haskins and William Judson, and that they should have been made parties to the bill. This involves the necessity of inquiring into the nature of those assignments. Upon inspection, it appears that the agreement with Haskins is a mere license, and therefore furnishes no foundation for the objection. The assignment to William Judson would appear in the first part of it to convey a present interest, but in the latter part of it, it is "*distinctly understood*" that Mr. Goodyear had not conveyed, and did not convey, to said Judson, or his representatives, any right of sale or disposition of said inventions or patent rights, and that the said William Judson should

not *be entitled to collect* or enforce the payment of said interest until the decision of the court, on motion for injunction, or by verdict of a jury, which reduces the assignment to Judson to a mere covenant on the part of Goodyear, that upon a certain event (which has not yet taken place) he (Judson) shall have a certain interest in the improvements and patent rights, and of course it was not necessary to make him a party. The assignment to Dorr, was one *sui generis*, but it is similar to that of Judson's in its conclusion, in which it is provided virtually that the said Goodyear had not conveyed, and did not convey, by anything in said assignment contained, to the said Dorr, or his representatives, "any *right of sale, disposition*, or control, of said inventions, patent rights and property, mentioned in said assignment, until there should be \$75,000 credited to Dorr, according to the terms of said agreement," which event does not appear to have taken place; wherefore it amounts to nothing more than a covenant that Dorr should have a right to the control of said patent rights upon a contingency, which has not yet occurred. I therefore can see no good reasons why the complainant is not entitled to his account, according to the prayer of his bill.

But as this view of the case applies to the present defendant only and those holding under him, it is proper to inquire whether the complainant is entitled to his relief generally, and without reference to these particular contracts. Before entering upon that important branch of the subject, I advert to one objection, which it appears right to notice at this place. In the 2d point made by the defendant in his brief he claims, "That the complainant has no right to maintain this suit, because prior to its commencement he had bargained and sold, transferred and assigned his interest in the avails of any damages to be recovered against infringers of his patents, to others." And to sustain the objection, he refers to an agreement made by the complainant with L. Candee and others, marked Exhibit C; upon the examination of which agreement, it appears to be a license from Goodyear to Candee and others, to use his improvements and patents, for the purpose only of manufacturing boots and shoes, with a covenant added that Candee and his associates should do all that might be proper and necessary to sustain said patents and defend the same against piracies and infringements; to be done at their expense, and that they were to pay the costs and to have the avails of all suits which they might commence in the name of the complainant or otherwise; and liberty was given to use his name in all cases where it might be deemed proper or necessary by counsel. The defendant seems to think, that by these covenants Candee and his associates are bound to defend the patents of Goodyear against piracies in all cases, and to pay the costs and to have the avails of all suits which might be commenced for damages for infringements of any of the patents of the complainant, when, according to the correct construction of these covenants, they must be limited in their operation to the subject matter of the license, that is to say, to infringement of their exclusive privilege of using these improvements in making boots and shoes; and although this agreement may possibly furnish a good reason why, in the order for account, this particular branch should be excepted, I can see no reason why it should defeat the action. We now inquire whether the complainant, Goodyear, is entitled to the relief which he seeks, without reference to these covenants with the defendant; and the first objection taken by the defendant is, that the complainant has not established his right at law.

Much ingenuity has been displayed by counsel upon this point. But af-

ter all that can be said upon the subject, it is reduced to this general proposition, that Courts of Equity have the right which generally should be exercised, of invoking the aid of a jury to settle disputed facts, but to be exercised at the discretion of the court ; and of course the propriety of adopting such course must depend upon the circumstances of each particular case. The view I take makes it unnecessary to examine the question as applicable to this case, it having already been settled by a verdict of a jury, and it cannot be considered necessary to anticipate what might be a proper course to be adopted in this respect, upon any future case which might arise.

The question recurs, whether Goodyear, the complainant, is entitled to the relief which he asks without reference to these covenants with Day, the defendant ; and the first inquiry in order relates to the patent of 1839, issued to the complainant upon the invention of N. Hayward.

The originality of that invention is not denied in the answer ; but it is alleged, that "if Hayward ever had any right to a patent for the combination of sulphur and rubber, the same was abandoned and given up to the public by his, and by others, with his knowledge, using and selling it before his application for a patent."

In order to understand the bearing of the law and the evidence of upon this point, it is necessary to examine and ascertain what Goodyear claimed as the invention of Hayward. He claims as his invention, and desires to secure by Letters Patent, "the combining of Sulphur with Gum Elastic, either in solution or substance, either in the mode pointed out (in his specification) or in any other which is substantially the same, and which will produce a like effect." And the patent was issued on the 24th day of February, A. D., 1839. Upon examining the testimony on this point, there appears very little if any contrariety. Hayward was engaged in the spring of 1836, in the manufacture of India Rubber for "the Eagle India Rubber Co. at Woburn," in the character of superintendent of the manufacture and compounding part. It appears by the testimony of Hayward himself, as well as by the witnesses of defendant, that he was experimenting during 1836, 1837, and 1838, in the manufacture of India Rubber Goods, by the aid of sulphur and other materials ; and that goods were manufactured and sold to a small amount. But it does not appear by the testimony of any witness that any goods were manufactured during that period in the manner described in the patent of 1839. Wm. S. Humphrey, the principal witness on the part of the defendant, in that respect, speaking of the materials used by Hayward in 1836 and 1837, says, they were India Rubber, lampblack, and spirits of turpentine ; also sulphur and white lead were used ; and as to the proportions, he says, "I do not think the proportions were ever definitely fixed. I do not know any definite proportion used at the time ;" and when asked what proportion of all the goods made by that company during the years 1836-7, were prepared by the use of sulphur in some form in the rubber compound, he answers, "that he cannot state the proportion, and that he did not feel prepared to give any definite answer." Most of all of the other witnesses referred to by the defendant, merely go to prove the undisputed fact, that he used sulphur in the manufacture of some of his goods.

The facts as to this point are and appear by all the evidence to be, that Hayward, being impressed with the importance of sulphur in the manufacture of India Rubber goods, continued a series of experiments at Woburn, from the spring of 1836, until the company prohibited the use of sulphur as injurious to their goods, and failed in business. Hayward afterward went on

with his experiments, and in 1839 brought it to such perfection, as to justify the taking out of a patent, which was done by Goodyear, as purchaser of Hayward's rights.

It is not necessary to examine particularly the law upon this subject, as the facts do not sustain the objection under any view of the law. The next subject in order of inquiry is the patent of 1849, for an improvement in the manufacture of rubber, by which is produced the article now technically denominated "Vulcanized Rubber." It is a fact of great importance to the public that such an improvement has been made; and it is also a fact that the complainant, Goodyear, has obtained a patent for that improvement, which *prima facie* establishes his right. In answer to this claim of the complainant, the defendant, in the first place, denies that Goodyear was the original inventor, and then endeavors to establish the truth of his denial by the testimony of witnesses, the first and most important of whom is Richard Collins, whose testimony, from its extraordinary character, requires careful consideration.

He swears that, in September, 1833, at Baltimore, he made a "Rubber Compound, consisting of sulphur, lead, lampblack, turpentine, and magnesia, mixed with rubber," and that he submitted it to a heat of from "200° to 250° for the space of twelve hours." And as to the proportions, he says: "I did not know at first how much it would take; but after I had made my composition, I found it took about the proportions of three pounds of rubber, one pound of dry white-lead, nearly half a pound of sulphur. I did not weigh the ingredients; I judged from the portion that was left; I used considerable magnesia in consequence of using more turpentine than was necessary, not knowing how much it did require."

He left Baltimore, and was in Boston from October, 1833, to March, 1834, when he went to Lowell, and remained there until December, 1834; when he went to Newton, and remained there until March, 1835; when he went to Boston, and continued there until April, 1836; when he went to Salem, and left there in January, 1837; and afterward went to Lowell, and staid till 1841. In these several places he was engaged in different India-Rubber establishments, and used this compound which he had discovered at Baltimore, but kept it secret, except to his brother and some one or two others; and he swears as follows: "I have tried no experiments only what I tried at Baltimore in 1833. The process I have tried in several places since, and have found the cloth covered with the composition was good, and there was no occasion to alter the compound nor the proportions." And further, he says: "The first time I made composition consisting of sulphur, dry white-lead, magnesia, lampblack, India-Rubber, etherial spirits of turpentine, that was the first time I ever tried it, or heard of its being used. Finding the first composition made by me at Baltimore was right, I have not altered it since." And finally, upon being requested to explain why he used, or directed to be used, his composition at the several places after leaving Baltimore, and whether it was to ascertain anything about the goods made of that composition, he answers: "It was not to ascertain anything about the goods. I have always intended, if opportunity offered me a good chance to take the charge of manufacturing India-Rubber goods, I should do so; and, knowing the composition being better than any I had ever seen or used, I was in hopes to be benefited by it, and shall hereafter, if opportunity offers." And this sworn on the 23d of July, 1851.

If this testimony be considered upon the hypothesis that Collins, in his

Baltimore experiment, produced the article now known as Vulcanized Rubber, it is incredible for several reasons. In the first place, it cannot be believed that a young man, without any previous knowledge of the India-Rubber business, without ever having used, or heard of the use, of the different articles necessary to produce that material, should have discovered, at the first effort, those several articles, with the proportions of each, and the degree of heat necessary to produce the desired result. And it is equally incredible that, he having made so important an improvement, should not have availed himself of the benefit of that improvement during the twelve or fourteen years that he was engaged in the different rubber establishments in Boston, Lowell, Salem, &c., where every exertion was making to improve the manufacture of rubber.

But if all that he swears be taken as true, it does not disturb the right of the complainant. It is undoubtedly true that many persons about that time were experimenting upon rubber, striving to do away with the objections and difficulties in its use, and they may have used the same materials in experimenting, and applied different degrees of heat; but it matters not how near they may have come unless they have arrived at the particular result; and it is fortunate for the complainant in this case that such result is known by a chemical change in the material, rendering it insensible to the operation of heat and cold, and so distinct and marked as not to be mistaken.

Now, it does not appear from the testimony of Collins, that he ever did produce vulcanized rubber. In no part of his testimony does he say that the effect of the Baltimore experiment was to render the rubber insensible to the effect of heat and cold. His description of the heat to which his composition was exposed, is vague and uncertain. He estimates it at from 200° to 250° ; and when it is considered that the experiment was made in his sleeping apartment, a room from 12 to 14 feet square, in a cylinder placed in the oven of a large stove, heated by wood, and continued for 24 hours, it is not surprising that (in the absence of a thermometer) he should have made a high and mistaken estimate of the degree of heat. For it is quite manifest that if he had kept the stove heated to the highest degree estimated, it would have produced upon his own body, the very effect that was desired to be produced upon the rubber—rendering it insensible to the effects of heat and cold. It is proper to remark that in the further part of his testimony, describing the several times and places in which he had used this Baltimore improvement, he never states the degree of heat to which the compound was exposed; and the several witnesses, John Collins, Rufus F. Newhall, Leander M. Earle and Leonard Shattuck, who severally swear that they have used this improvement under the direction of Richard Collins—none of them stated that a high degree of heat was used. On the contrary, Earle swears as to the degree of heat—that he used a “moderate degree of heat at first and then pretty warm, quite warm;” and being asked for what purpose the heat was used, he answers, “for drying the composition.”

The defendant also insists, that Elisha Pratt vulcanized India Rubber previous to the patent of the complainant, that is, previous to the 15th day of June, 1844. For in the investigation of this subject, the patent of 1849 must be considered as bearing the same date with the patent which was surrendered.

In answer to this claim it is sufficient to remark, that his vulcanizing process was carried on in a small room, where the hats to be vulcanized were



hung up and the room heated by a stove ; and that he went into this room when heated, for the purpose of examining the hats, and being asked how long he would stay in the room, he answers, " I should state from 10 to 15 minutes. I had to be very expeditious about my business there. It was very hot, and required to keep the heat in." When we consider that water boils at a temperature of 212 degress, it is quite manifest that this also was a mere drying, and not a vulcanizing process. The defendant further insists, that Goodyear, the complainant, did not invent the vulcanizing process ; but that the knowledge thereof was communicated to him by others, who invented it, and he names John F. Nash and William Beers, as the two persons who made the invention and communicated it to him ; and of course that Nash and Beers, or one of them, should have had the patent.

Upon examining the testimony, it appears that these two men, with others, were in the employment under pay of Goodyear, making experiments under his directions ; and by their experiments they might, and probably did, aid in obtaining the final result.

But it by no means follows that Goodyear, under whose direction these improvements were made, should be deprived of the credit or benefit of h e improvement.

The defendant also insists, and in his answer he swears, that " prior to the application of the complainant for his patent, and more than two years before such application, he used, and had in practical use and operation in his business in the state of New-Jersey, the thing, invention, or discovery, or every substantial, useful and material part thereof which is claimed by said Goodyear in his letters patent of 1849." That is to say, he swears that he made vulcanized rubber as early as June 15, 1842.

This is not confirmed by any witness on the part of the defendant ; but it is quite manifest from the letter of the defendant himself, explained and confirmed by the testimony of Horace Cutler, that until after December, 1842, he, the defendant, did not understand the process of vulcanizing rubber ; and that he then obtained the information from said Cutler, who had it from the complainant.

The defendant also charges that both N. Hayward and Mr. Hancock, of England, made this improvement prior to the complainant. But, unfortunately for the argument, these gentlemen both accord to Mr. Goodyear the merit of this invention, and no man for himself claims the merits of the invention, and no man denies that Mr. Goodyear is entitled to that merit, except the defendant in this case.

But the defendant raises an objection, which, if well founded, renders it very immaterial who was the original inventor. For he insists, that if even the patent of 1844 was a good and valid patent, yet the re-issued patent of 1849 is void for certain reasons which render it necessary to examine the law upon that subject.

The 13th Section of Statute of July 4, 1836, provides that if a patent " shall be inoperative or invalid by reason of a defective or insufficient description or specification, or by reason of the patentee claiming in his specification as his invention, more than he had, or shall have a right to claim as new," the patentee is authorized to surrender the patent, and the commissioner to issue a new patent, with a corrected description or specification, provided the error has arisen " by inadvertence, accident or mistake, and without any fraudulent or deceptive intention."

This section contemplates two classes of cases. First, where a patent

shall be *inoperative* or *invalid* by reason of a defective or insufficient description or specification. And secondly, where that objection arises "By reason of the Patentee claiming in his specification, as his own invention, more than he had or shall have a right to claim as new."

As to the first case, it is manifest that although the description or specification in a patent, be clear and distinct to describe some improvement or invention, yet if it do not describe the particular invention intended to be described, it is inoperative, or invalid, according to the sense of the law, and will justify a surrender, and re-issue; but before the re-issue is made the applicant must satisfy the Commissioner that the corrected description is a true description of the thing invented. This case had the adjudication of the Commissioner upon the subject, and in the absence of all evidence or pretext of fraud or deception, I am not disposed, even if we had the power, to disturb his adjudication. The applicant for the re-issuing of a patent is not bound to describe or claim all that he described and claimed in his original patent; but he may not describe or claim any new, or other improvement. In this case it is not necessary to inquire particularly as to the different kinds of evidence, which may be used before the Commissioner, or the Court, to establish the fact, that the applicant has a case which brings him within the purview of the act; for the letter of Goodyear to Dr. Jones, of the 13th December, 1844, clearly establishes the fact, that the description of a part of his original invention was omitted in the specification of 1844, by inadvertency, accident or mistake; and, therefore, that he was entitled to a re-issue. And the only important question remaining is whether, in his re-issued patent of 1849, he has described and claimed an improvement different from, and more extensive than his original invention. It is not pretended that the improvement described in the patent of 1849, is different in result from that described in the patent of 1844. Both of them are for making vulcanized rubber; but the objection to the patent of 1849 appears to be, that it embraces a different and more extensive use of heat to produce the result, than the patent of 1844. In the specification of 1844, the applicant says: "but I prefer to expose them to an atmosphere of *artificial heat* of the proper temperature." Now, as that temperature is at least as high as 212° , it must have been an artificial heat; and the word *prefer*, which he uses in both specifications, as applicable to the particular manner and form of applying the heat, implies that there was some other form that he might use; but that he regarded this particular manner and form more than another, and the expression in the specification of 1849, that "the operator may communicate the heat in any suitable manner or form," refers to the manner or form of applying the heat, and not to the kind or quality of the heat; and the only legitimate and proper use of that expression is to exclude the conclusion that the operator might be limited to the particular form or manner therein specified and described. The objection, therefore, does not apply to this part of the specification, nor do I think it applies to the latter part or claim made by the complainant in his specification of 1849. In the specification of 1844, he describes the exposure to *heat* generally, limiting that heat to about 270° ; and in his claim he speaks of exposure to a "*high degree of heat as therein specified*." Under this specification he had the undoubted right to use heat of any kind then known. In the specification of 1849, he claims the use of "a high degree of *artificial heat* substantially as therein described." And by reference to the specification, it appears that

he does not in any place describe any particular kind of heat, but uses the term artificial as applicable to degrees of temperature above natural heat.

I do not inquire whether the complainant may use heat in the form of steam, for the purpose of curing rubber, as that is not in issue. It is sufficient to say, that if any difficulty exist, it is not by force of the re-issued patent.

The objection that the complainant, in his patent of 1849, claims curing rubber *in the presence of sulphur*, is not well founded. For if it be more extensive than the specification of 1844 in that respect, it is not more extensive than his actual invention, as is manifest from his letter to Dr. Jones.

I have not thought it necessary to remark particularly upon the testimony on the part of the complainant, as I do not consider that the testimony of the defendant has overcome the *prima facie* evidence arising from the patent itself. But it is due to Mr. Goodyear to say, that upon examining the certificate of Professor Silliman, and other evidence in the case, I am entirely satisfied that he is the original inventor of the process of vulcanizing rubber, as stated in his bill; and that he is not only entitled to the relief which he asks, but to all the merit and benefits of that discovery.

Decree accordingly.

IN CIRCUIT OF UNITED STATES,

For District of New-Jersey.

CHARLES GOODYEAR,

vs.

HORACE H. DAY.

} *In Equity.*

This cause having been brought to a final hearing upon pleadings and the proofs, and having been argued by counsel for the respective parties, and the Court having duly considered the same,

It is now ordered, adjudged and decreed as follows :

1. That a perpetual injunction issue against the defendant, according to the prayer of the bill.

2. That it be referred to James S. Green, Esquire, one of the Masters of this Court, to take an account of the damages which the complainant has sustained by reason of the infringements by the defendant, of the patents in said bill mentioned, or either of them, since the first day of January, 1849, and in taking such account the Master shall ascertain the amount of goods so manufactured or sold and the profits accruing therefrom; and also whether any other damages have been suffered or incurred by complainant, as directly consequential from such acts of infringement which would not

be compensated by assuming the defendant's profits as the measure of compensation of the injury to complainant.

3. It is further ordered and adjudged that the said Master do take an account of all shirred goods and other articles manufactured by the defendant, since the first of January, 1849, in pursuance of or according to the license granted to him by the articles of agreement set forth in the pleadings, and the amount of tariff due and payable thereon ; and also whether any damages (and how much) have been sustained by the defendant from the neglect or failure of the complainant to protect him in the enjoyment of said license, according to his covenants.

4. It is further ordered, that the defendant, from time to time, as ordered by said Master, do appear before him and submit to examination in the accounting herein ordered, and produce such books and papers relating thereto, as said Master may direct, and that (besides the evidence already taken in this case) the parties have leave to produce and examine witnesses before the Master as to the matters of accounting and damages ; for which purpose they may have the process of the Court to compel their attendance.

5. It is further ordered that the said Master make his report with all convenient speed ; and that on the coming in of the report, the cause be set down for a hearing thereon, and the equities reserved.

Lastly. All further directions are reserved till the coming in of such report and the final decree to be thereafter entered.

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